

# **STRUCTURAL CONTROL MAINTENANCE CHECKLISTS**

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# Operation and Maintenance Inspection Report for Stormwater Management Ponds

(Adapted from Watershed Management Institute, Inc.)

Inspector Name: \_\_\_\_\_ Project Location: \_\_\_\_\_

Inspection Date: \_\_\_\_\_

Stormwater Pond: \_\_\_\_\_

Normal Pool: \_\_\_\_\_

Normally Dry: \_\_\_\_\_ Watershed: \_\_\_\_\_

Inspection Items	Checked? Yes / No	Maintenance Needed? Yes / No	Inspection Frequency	Comments
<b>Pond Components</b>				
1. Embankment and Emergency Spillway				
a. Adequate vegetation and ground cover			A	
b. Embankment erosion			A	
c. Animal burrows			A	
d. Unauthorized plantings			A	
e. Cracking, bulging, or sliding of dam				
i. Upstream face			A	
ii. Downstream face			A	
iii. At or beyond toe				
Upstream			A	
Downstream			A	
iv. Emergency spillway			A	
f. Pond, toe & chimney drains clear & functioning			A	
g. Leaks on downstream face			A	
h. Abutment protection or riprap failures			A	
Visual settlement or horizontal misalignment				
i. of top of dam			A	
j. Emergency spillway clear of debris			A	
k. Other (specify)			A	
2. Riser and principal spillway				
Type: Reinforced Concrete _____				
Corrugated Pipe _____				
Masonry _____				
a. Low flow orifice obstructed			A	
b. Low flow trash rack				
i. Debris removal necessary			A	
ii. Corrosion control			A	
c. Weir trash rack				
i. Debris removal necessary			A	
ii. Corrosion control			A	
d. Excessive sediment accumulation inside riser			A	

Inspection Items		Checked? Yes / No	Maintenance Needed? Yes / No	Inspection Frequency	Comments
e. Concrete / Masonry condition Riser and Barrels					
i. Cracks or displacement				A	
ii. Minor spalling (< 1")				A	
iii. Major spalling (rebars exposed)				A	
iv. Joint failures				A	
v. Water tightness				A	
f. Metal pipe condition				A	
g. Control valve					
i. Operational / exercised				A	
ii. Chained and locked				A	
h. Pond drain valve					
i. Operational / exercised				A	
ii. Chained and locked				A	
i. Outfall Channels flowing				A	
j. Other (specify)				A	
3. Permanent pool (wet ponds)					
a. Undesirable vegetative growth				M	
b. Floating or floatable debris removal required				M	
c. Visible pollution				M	
d. High Water Marks				M	
e. Shoreline problems				M	
f. Other (specify)				M	
4. Sediment forebays					
a. Sedimentation Noted				M	
b. Sediment removal when depth < 50% design dept				M	
5. Dry pond areas					
a. Vegetation adequate				M	
b. Undesirable vegetative growth				M	
c. Undesirable woody vegetation				M	
d. Low flow channels clear of obstructions				M	
e. Standing water or wet spots				M	
f. Sediment and / or trash accumulation				M	
g. Other (specify)				M	
6. Conditions of outfalls into pond					
a. Riprap failures				A, S	
b. Slope erosion				A, S	
c. Storm drain pipes				A, S	
d. Endwalls / headwalls				A, S	
e. Other (specify)				A, S	

Inspection Items	Checked? Yes / No	Maintenance Needed? Yes / No	Inspection Frequency	Comments
7. Other				
a. Encroachments on ponds or easement area			M	
b. Complaints from residents (describe on back)			M	
c. Aesthetics				
i. Grass height			M	
ii. Graffiti removal necessary			M	
iii. Other (specify)			M	
d. Any public hazards (specify)			M	
e. Maintenance access			M	
8. Constructed wetland areas				
a. Vegetation healthy and growing			A	
b. Evidence of invasive species			A	
c. Excessive sedimentation in wetland area			A	

Inspection Frequency Key    A = Annual;    M = Monthly;    S = After major storm

#### Summary

1. Inspector Remarks: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

2. Overall condition of Facility (Check one)

\_\_\_\_\_ Acceptable  
 \_\_\_\_\_ Unacceptable

3. Dates any maintenance must be completed by:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
 Inspector's Signature

## Operation and Maintenance Inspection Report for Filtration Facility

(Adapted from Watershed Management Institute, Inc.)

<b>Inspector Name:</b> _____ <b>Inspection Date:</b> _____ <b>Watershed:</b> _____ <b>As-built Plans availab</b> _____	<b>Project Location:</b> _____ _____ _____ _____
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Inspection Items	Checked? Yes / No	Maintenance Needed? Yes / No	Inspection Frequency	Comments
1. Debris removal				
Adjacent area clear of debris			M	
Inlets and outlets clear of debris			M	
Filtration facility free of debris			M	
2. Vegetation				
Adjacent area stabilized			M	
Grass mowed			M	
Any evidence of erosion			M	
3. Oil and grease				
Any evidence of filter clogging			M	
4. Water retention where required				
Water holding chambers at normal pool			M	
No evidence of leakage			M	
5. Sediment deposition				
Filtration chamber clean of sediments			A	
Water chambers not more than ½ full of sediments			A	
6. Structural components				
Any evidence of structural deterioration			A	
Grates in good condition			A	
Any evidence of spalling or cracking of structural parts			A	
7. Outlets / overflow spillway				
Good condition (no need for repair)			A	
Any evidence of erosion			A	
8. Overall function of facility				
Any evidence of flow bypassing facility			A	
Any noticeable odors outside of facility			A	
9. Pump (Where applicable)				
Catalog cuts and wiring diagram for pump available			A	
Waterproof conduits for wiring appear to be intact			A	
Panel box is well marked			A	
Any evidence of pump failure (excess water in pump well, etc.)			A	

Inspection Frequency Key    A = Annual;    M = Monthly;    S = After major storm

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Necessary Action:

If any of the items above were answered Yes for "Maintenance Needed", a time frame needs to be established for repair or correction.

No action necessary. Continue routine inspections.

Correct noted facilities deficiencies by (date) \_\_\_\_\_

Facility repairs were previously indicated and completed. Site reinspection is necessary to verify corrections or improvements.

Site reinspection completed on (date) \_\_\_\_\_

Site reinspection was satisfactory.

Next routine inspection is scheduled for approximately (date): \_\_\_\_\_

\_\_\_\_\_  
Inspector's Signature

## Operation and Maintenance Inspection Report for Infiltration Trenches

(Adapted from Watershed Management Institute, Inc.)

Inspector Name: \_\_\_\_\_

Project Location: \_\_\_\_\_

Inspection Date: \_\_\_\_\_

Watershed: \_\_\_\_\_

As-built Plans available? \_\_\_\_\_

Inspection Items	Checked? Yes / No	Maintenance Needed? Yes / No	Inspection Frequency	Comments
1. Debris removal				
Trench surface clear of debris			M	
Inlets clear of debris			M	
Inflow pipes clear of debris			M	
Overflow spillway clear of debris			M	
2. Sediment traps, forebays, or pretreatment swales				
Obviously trapping sediment			A	
Greater than 50% of original storage volume remaining			A	
3. Vegetation				
Mowing done when necessary			M	
Fertilized per specification			M	
Any evidence of erosion			M	
Contributing drainage area stabilized			M	
4. Dewatering				
Trench dewatered between storms			M	
5. Sediment removal of trench				
Any evidence of sedimentation in trench			A	
Does sediment accumulation currently require removal			A	
6. Inlets				
Good condition			A	
Any evidence of erosion			A	
7. Outlets / overflow spillway				
Good condition (no need for repair)			A	
Any evidence of erosion			A	
8. Aggregate repairs				
Surface of aggregate clean			A	
Top layer of stone in need of replacement			A	
Trench in need of rehabilitation			A	
9. Vegetated surface				
Evidence of erosion present			M	
Perforated inlet functioning adequately			M	
Does water stand on vegetated surface			M	
Does good vegetative cover exist			M	
10. Overall function of facility				
Any evidence of flow bypassing facility			S	

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Necessary Action:

If any of the items above were answered Yes for "Maintenance Needed", a time frame needs to be established for repair or correction.

No action necessary. Continue routine inspections.

Correct noted facilities deficiencies by (date) \_\_\_\_\_

Facility repairs were previously indicated and completed. Site reinspection is necessary to verify corrections or improvements.

Site reinspection completed on (date) \_\_\_\_\_

Site reinspection was satisfactory.

Next routine inspection is scheduled for approximately (date): \_\_\_\_\_

\_\_\_\_\_  
Inspector's Signature



# Operation and Maintenance Inspection Report for Enhanced Swales / Grass Channels / Filter Strips

(Adapted from Watershed Management Institute, Inc.)

Inspector Name: \_\_\_\_\_

Project Location: \_\_\_\_\_

Inspection Date: \_\_\_\_\_

Watershed: \_\_\_\_\_

As-built Plans available? \_\_\_\_\_

Inspection Items	Checked? Yes / No	Maintenance Needed? Yes / No	Inspection Frequency	Comments
1. Debris removal				
Facility and adjacent area clear of debris			M	
Inlets and outlets clear of debris			M	
Any dumping of yard wastes into facility			M	
Has litter (branches, etc.) been removed			M	
2. Vegetation				
Adjacent area stabilized			M	
Grass mowed			M	
Plant height not less than design water depth			M	
Fertilized per specifications			M	
Any evidence of erosion			M	
Is plant composition according to approved plans			M	
Any unauthorized or inappropriate plantings			M	
Any dead or diseased plants			M	
Any evidence of plant stress from inadequate watering			M	
Any evidence of deficient stakes or wires			M	
3. Oil and grease				
Any evidence of filter flogging			M	
4. Dewatering				
Facility dewateres between storms			M	
5. Check dams / energy dissipators / sumps				
Any evidence of sedimentation buildup			A, S	
Are sumps greater than 50% full of sediment			A, S	
Any evidence of erosion at downstream toe of drop			A, S	
6. Sediment deposition				
Swale clean of sediments			A	
Sediments should not be > 20% of swale design depth			A	
7. Outlets / overflow spillway				
Good condition (no need to repair)			A, S	
Any evidence of erosion			A, S	
Any evidence of blockages			A, S	
8. Integrity of facility				
Has facility been blocked or filled inappropriately			A	
9. Bioretention Planting Soil				
Any evidence of planting soil erosion			A	

Inspection Items	Checked? Yes / No	Maintenance Needed? Yes / No	Inspection Frequency	Comments
10. Organic Layer				
Mulch covers entrie area (NO voids) and to specified thickness			A	
Mulch is in good condition			A	

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Necessary Action:

If any of the items above were answered Yes for "Maintenance Needed", a time frame needs to be established for repair or correction.

No action necessary. Continue routine inspections.

Correct noted facilities deficiencies by (date) \_\_\_\_\_

Facility repairs were previously indicated and completed. Site reinspection is necessary to verify corrections or improvements.

Site reinspection completed on (date) \_\_\_\_\_

Site reinspection was satisfactory.

Next routine inspection is scheduled for approximately (date): \_\_\_\_\_

\_\_\_\_\_  
Inspector's Signature